

Amendments to the Specification:

Please replace the paragraph beginning on page 1, line 5 with the following rewritten paragraph:

The present invention relates generally to a method of producing a security document or device, and in particular to security documents or devices which include an optically diffractive structure, or other visible or detectable effect such as a diffraction~~defraction~~ grating or like device, or a polarisation pattern. The invention is applicable to the production of banknotes, and it will be convenient to hereinafter describe the invention in relation to that exemplary application. It is to be appreciated, however, that the invention is not to be limited to that application.

Please replace the paragraph beginning on page 1, line 13 with the following rewritten paragraph:

The practice of applying diffraction~~defraction~~ gratings and like optically detectable diffractive and other structures to security documents and devices, such as credit cards, bank notes and cheques, has become widely adopted. Currently, diffraction~~defraction~~ gratings and other structures are produced in multi-layer thin films supported on thin carrier structures. The structures are then transferred from the thin film carrier substrate to the security document or device, typically by using a hot-stamping process. Reflective optical diffraction~~defraction~~ devices conventionally contain an ultra-thin vacuum metallised reflective layer, usually aluminium, adjacent to the diffractive structure within the multi-layer structure.

Please replace the paragraph beginning on page 5, line 30 with the following rewritten paragraph:

In this example, a diffraction~~defraction~~ grating or other optically diffractive device is formed on one surface 3 of the substrate 2 by irradiating~~radiating~~ an area of that

surface with ~~patterned~~pattern laser radiation. The patterning of the laser radiation incident on the one surface 3 of the substrate 2, may result from the placement of a mask in the path of the laser radiation. The mask 4 may have apertures 5 formed therein such that in those areas where the laser radiation passes through the mask, the light interacts with the surface layer of the substrate 2 in which the ~~diffraction~~defraction grating is to be created, causing material to be ablated or otherwise removed to an appropriate depth in the surface layer of the substrate 2 and resulting in a three dimensional optically diffractive structure 6.

Please replace the paragraph beginning on page 6, line 9 with the following rewritten paragraph:

A reflective coating 7 is then applied to the ~~ablated~~oblated surface of the substrate 2. The reflective coating 7 may be a coated polymer layer, containing, for example, metallic pigment particles, or reflective particles, to perform a reflective function. The reflective layer 7 may be applied by conventional printing methods, and may fill the three dimensional structures formed by the laser oblating of the surface 3 of the substrate 2. The coated polymer layer 7 acts as a binding matrix to hold the reflective particles, and provides the strength and flexibility required for the reflective layer to resist physical wear and tear, while the pigment particles may be formed from a material which is resistant to chemical attack.

Please replace the paragraph beginning on page 7, line 30 with the following rewritten paragraph:

Whilst Figures 1 to 3 illustrate examples of a method of producing a security document including a reflective diffractive device, Figures 4 to 6 provide examples of a method of producing a security document including a transmission diffractive device. In Figure 4, one surface of the transparent polymeric film 2 is ablated by laser radiation passing through a mask 4, to form therein the same optically diffractive device 6 illustrated in Figure 1. However, in this example, no reflective layer is subsequently applied to the surface of the

substrate 2, so that a ~~diffraction~~defraction effect is observed by the user 10 when light 30 from the light source 9 is transmitted through the substrate 2.

Please replace the paragraph beginning on page 8, line 12 with the following rewritten paragraph:

In a first variation of this method, as illustrated in Figure 5, an optically diffractive device 6 is once again ablated into a surface of the transparent substrate film 2. Subsequently, a clear coating layer 40 of different refractive index to the substrate film 2, is applied to the surface of the substrate 2. The transparent coating 40, as in previous examples, fills the three dimensional diffractive device 6, and prevents wearing of optically diffractive structure 6. The ~~diffraction~~defraction effect produced by the structure 6 may once again be observed in light transmitted through the substrate and transparent coating.

Please replace the paragraph beginning on page 8, line 20 with the following rewritten paragraph:

In ~~Figure~~method 6, there is illustrated a second variation of the method for producing a security document including a transmission diffractive structure. In this figure, the transparent plastics substrate 2 is firstly coated with a clear coating 45 formed from a transparent polymeric material. A diffractive structure 46 is ablated into the clear coating 45 by means of incident patterned laser radiation. A transparent layer 47 is then coated onto the transparent coating 45 filling the diffractive structure 46 formed therein. The transparent layer 47 and the transparent coating 45 are formed from materials having different refractive indexes, in order that a ~~diffraction~~defraction effect may be observed when light is transmitted through the security device. Where the method does not include transparent layer 47, the resulting document still functions as described above.